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adhesive



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[Dictionary](#)**adhesive**Dictionary

dic·tion·ar·ies

ad·he·sive (ăd-hĕ'sĭv, -zĕv)

adj.

1. Tending to adhere; sticky.
2. Gummed so as to adhere.
3. Tending to persist; difficult if not impossible to shake off: *"He feels an adhesive dread, a sudden acquaintance with the . . . darker side of mankind"* (George F. Will).

n.

A substance, such as paste or cement, that provides or promotes adhesion.

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adhesive

*adjective*Having the property of adhering: gluey, gooey, gummy, sticky, tacky. See clean/dirty, keep/release.The Tile Shop- Tile

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Antonyms

adhesive
adj

Definition: sticking

Antonyms: loose, open, separated

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Encyclopedia

adhesive, substance capable of sticking to surfaces of other substances and bonding them to one another. The term *adhesive cement* is sometimes used in place of *adhesive*, especially when referring to a synthetic adhesive. Animal glue, a gelatin made from hides, hooves, or bones, was probably known in prehistoric times; it remained the leading adhesive until the 20th cent. It is now used especially in cabinetmaking. Animal glue is sold both as a solid (either ground or in sheets, to be melted in a water-jacketed glue pot and applied while hot) and as liquid glue (an acidic solution). Adhesives from vegetable sources are also important; they include natural gums and resins, mucilage, and starch and starch derivatives. They are commonly used for sizing paper and textiles and for labeling, sealing, and manufacturing paper goods. Other adhesives derived from animal and vegetable sources include blood glue, casein glue, fish glue, rubber adhesives, and cellulose derivatives. Adhesives having special properties are prepared from synthetic resins. Some synthetic adhesives, such as the epoxy resins, are strong enough to be used in construction in place of welding or riveting. Adhesive tapes have a coating of pressure-sensitive adhesive.

Bibliography

See I. Skeist, ed., *Handbook of Adhesives* (1962); N. A. de Bruyne and R. Houwink, ed., *Adhesion and Adhesives* (2 vol., 2d ed. 1965-67); A. J. Kinloch, *Adhesion and Adhesives: Science and Technology* (1987).

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Medical

ad·he·sive (ăd-hĕ'sĭv, -zĕv)
adj.

1. Tending to adhere; sticky.
2. Of, relating to, or having the characteristics of an adhesion.

n.

A substance that adheres to a surface or causes adherence between surfaces.



WordNet

Note: click on a word meaning below to see its connections and related words.

The *noun* adhesive has one meaning:

Meaning #1: a substance that unites or bonds surfaces together

Synonym: adhesive material

The *adjective* adhesive has one meaning:

Meaning #1: tending to adhere

Antonym: nonadhesive (meaning #1)



Wikipedia

adhesive

An **adhesive** is a compound that adheres or bonds two items together. Adhesives may come from either natural or synthetic sources. Some modern adhesives are extremely strong, and are becoming increasingly important in modern construction and industry.

History

The first adhesives were gums and other plant resins. Archaeologists have found 6000-year-old ceramic vessels that had broken and been repaired using plant resin. Most early adhesives were animal glues made by rendering animal products such as the Native American use of buffalo hooves. Native Americans in what is now the eastern United States used a mixture of spruce gum and fat as adhesives and as caulk to waterproof seams in their birchbark canoes.

Categories of adhesives

Drying adhesives

These adhesives are a mixture of ingredients (typically polymers) dissolved in a solvent. Glues and rubber cements are members of the *drying adhesive* family. As the solvent evaporates, the adhesive hardens. Depending on the chemical composition of the adhesive, they will adhere to different materials to greater or lesser degrees. These adhesives are typically weak and are used for household applications. Some intended for small children are now made non-toxic.

Hot adhesives



A glue gun, an example of a hot adhesive

Also known as "hot melt" adhesives, these adhesives are applied hot and simply allowed to harden as they cool. These adhesives have become popular for crafts because of their ease of use and the wide range of common materials to which they can adhere. A glue gun, pictured right, is one method of applying a hot adhesive. The glue gun melts the solid adhesive and then allowing it to pass through the "barrel" of the gun onto the material where it solidifies.

Reactive adhesives

Epoxy resins are the most common example of this kind of adhesive. Reactive adhesives generally come in two separate containers. The two ingredients of the adhesive must be mixed in certain proportions immediately before application. Generally one ingredient is a monomer, or resin, and the second is a reaction initialiser. When the two are mixed together, a polymerisation reaction occurs which solidifies the adhesive.

Reaction adhesives may also react with the surface of the materials to be stuck together. This process is called bonding, in which the adhesive forms chemical bonds with the material, and is distinct from sticking, the action of common glues.

A special case of this kind of adhesive is cyanacrylate (more commonly known by the brand name "super glue") which reacts with trace moisture on the surfaces being bonded and therefore does not need any mixing before application.

Reactive adhesives are very strong and are used for high-stress applications such as attaching wings to aircraft. Because the strength of a reactive adhesive is a result of chemical bonding with the surface material, reactive adhesives are applied in thin films. Reactive adhesives are less effective when there is a secondary goal of filling gaps between the surfaces..

Such adhesives are frequently used to prevent loosening of bolts and screws in rapidly moving assemblies, such as automobile engines. They are largely responsible for the quieter running modern car engines.

Temporary adhesives

Temporary adhesives are designed to repeatedly or easily stick and unstick. They have low adhesion and generally can not support much weight. They are commonly used on paper, but can be used on many other things. They have common applications such as as bookmarks, informal notes, and office supplies. Brands include Blu-Tack, a gum-like adhesive (a.k.a. "sticky tak"), adhesive bandages, and the pressure-activated adhesive applied to the back of 3M's Post-It notes. The adhesives on items such as duct tape can generally adhere longer than these other products.

Also see adhesive tape and gaffer tape.

Adhesive failure

Adhesives may fail in one of two ways:

Adhesive failure is the failure of the adhesive to stick or bond with the material to be adhered (also known as the substrate or adherend).

Cohesive failure is structural failure of the adhesive. Adhesive remains on both substrate surfaces, but the two items separate.

Two substrates can also separate through structural failure of one of the substrates; this is not a failure of the adhesive. In this case the adhesive remains intact and is still bonded to one substrate and the remnants of the other.

For example, when one removes a price label, adhesive usually remains on the label and the surface. This is cohesive failure. If, however, a layer of paper remains stuck to the surface, the adhesive has not failed.

As another example, children often try to pull apart *Oreo* cookies with the filling all on one side. The goal is an adhesive failure, rather than a cohesive failure.

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Translations

Translations for: Adhesive

Nederlands (Dutch)
lijm, klevend, plak-

Français (French)
adhésif

Deutsch (German)
adj. - klebend, haftend
n. - Klebstoff, Kleber

Ελληνική (Greek)
n. συγκολλητική ουσία, αυτοκόλλητο adj. (συγ) κολλητικός, κολλώδης

Italiano (Italian)
adesivo

Português (Portuguese)
n. - adesivo (m), cola (f)
adj. - adesivo, aderente, viscoso

Русский (Russian)
цемент, клей, клейкий, липкий

Español (Spanish)
adj. - adhesivo
n. - adhesivo, pegamento

Svenska (Swedish)

n. - bindemedel, klister, lim
 adj. - självhäftande, häft-

胶 (Simplified Chinese)
 adj. - 胶, 胶水, 胶带
 n. - 胶水, 胶带

膠 (Traditional Chinese)
 adj. - 膠, 膠水, 膠帶
 n. - 膠水, 膠帶

胶 (Japanese)
 n. - ジャム
 adj. - ジャム

العربيه (Arabic)
 (الاسم) ماده سريعة التماسك مثل الغراء (صفه) دبق, لزق, سريع الالتصاق

עברית (Hebrew)
 adj. - דבק
 n. - דבק

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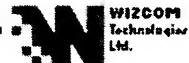
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